Statement of Basis
Briefing Memorandum

Red Cliff Band Wastewater Treatment Facility Permit No.: WI-0049727-2
Red Cliff Reservation, Bayfield County, Red Cliff, Wisconsin
(S.W. ¼ of the S.E. ¼ of Section 30, T51N, R3W)

Description of Activity

The treatment facility has pre-treatment consisting of a bar grate, fine screen, and grit removal. The main treatment is by oxidation ditch with alum addition for phosphorus removal and two final clarifiers. Disinfection is by ultraviolet lights. Sludge is wasted to an aerobic digester and then transferred to a Reed Bed storage system. It is not expected that sludge will have to be used or disposed during the term of this permit.

The facility has a continuous discharge {Outfall 001 (N. ½ of the N.E. ¼ of Section 31, T51N, R3W)} to Lake Superior. The outfall extends 350 feet from shore in 25 feet deep water. The Red Cliff Band WWTF is designed to treat an average influent flow of 220,000 gallons per day (gpd).

Limitations and Monitoring Requirements		
Parameter	**30-Day Average**	**7-Day Average**
BOD_5	30 mg/L	45 mg/L
TSS	30 mg/L	45 mg/L
Total Phosphorus	1 mg/L	N/A
Total Mercury	1.3 ng/L	N/A
E. coli	126 E. coli/100 ml	N/A
pH	6 S.U. (Minimum) 9 S.U.(Maximum)	

Basis for limits: The limits were developed to ensure compliance with 40 CFR Part 133, protection of human health and EPA's water quality criteria, and protection of Wisconsin water quality standards where they are applicable. EPA is moving in the direction of using E. coli, which is a better indicator of recreational suitability, instead of fecal coliform. The 30-day average limit for E. coli, based on EPA's water quality criteria, is 126 E. coli/100 ml. The permittee used the previous permit term to determine if the facility is capable of complying with the E. coli limit using the existing treatment. Past performance demonstrates that the permittee can comply with the E. coli limit. The mercury limit is consistent with the Great Lakes Initiative. Based on sampling data, we performed a reasonable potential analysis and determined that the mercury limit was needed. Our analysis is part of the administrative record. We also looked at the need for ammonia limits. To ensure protection of state water quality standards

where they are applicable, we calculated ammonia limits using Wisconsin procedures. Our analysis is part of the administrative record. Based on the analysis and past sampling data, we determined that no limits are needed. However, since we do not have sampling data for the winter months, the permit will require year round monitoring for ammonia. The permit also requires monitoring for acute whole effluent toxicity.

EPA is the appropriate authority for purposes of certifying the proposed discharge under Section 401 of the Clean Water. Clean Water Act Section 401 certification is not needed from the state or the tribe as neither has water quality standards applicable to the receiving water at the point of discharge.

Special Conditions

- The treatment plant shall be operated by a certified wastewater treatment operator.
- Additional monitoring as required for discharges with a design flow greater than 0.1 MGD. This monitoring is an application requirement of 40 CFR 122.21(j).
- A one time priority pollutant scan is required. This information will be used for future permit cycles.
- The development and implementation of a pollutant minimization program for mercury that will help the permittee in maintaining compliance with the mercury effluent limit.
- Whole effluent toxicity testing is required. This information will be used for future permit cycles.
- The permit contains Industrial Waste Pretreatment Program requirements in accordance with 40 CFR Parts 122 and 403.
- Compliance with 40 CFR Part 503 (sludge use and disposal regulations)(Part III of the permit) if sludge is used or disposed within the Reservation. Part III was developed using the Part 503 Implementation Guidance for sludge and 40 CFR Parts 122, 501, and 503. Compliance with NR 204, Wisconsin Administrative Code, if land applied outside the boundaries of the Reservation. It is expected, however, that sludge will not be used or disposed of during this permit term.
- In addition to the Part III sludge conditions, the permit requires the following conditions related to the Reed Bed system:

  - The reed bed system shall be operated and maintained to function properly and to ensure that the potential for dissemination of Phragmites (*Phragmites australis*) is minimized. Harvested reeds shall be disposed of by a method that has been approved by EPA in writing. Such disposal methods typically include burning in place or hauling to a landfill.

    If land application is utilized when sludge is removed, all sludge removed from the reed beds shall be screened prior to land application to exclude roots and/or rhizomes to prevent propagation of Phragmites. Screenings shall be disposed of at a sanitary landfill. This permit does not require screening of sludge that is disposed entirely by hauling to a landfill. EPA shall be notified at least 72 hours prior to sludge removal.

  - Unless waived in writing by EPA, the permittee shall conduct an annual survey of

adjacent lands for new Phragmites growth. Surveys shall be done at a time of the year when Phragmites are biologically active. The annual surveys shall contain the name and qualifications of the person(s) completing the inspection, the date of the survey, and at a minimum include descriptions of the area(s) inspected, land use(s), dominant plant community, existing Phragmites stands, and any areas of potential concern or newly discovered Phragmites growth. Photographic documentation of the survey area(s) is also recommended. The survey area should be as large as practicable and include any area potentially susceptible to Phragmites growth. Survey results shall be submitted to EPA within 60 days of survey completion. EPA shall be notified within 24 hours whenever new growths of Phragmites are discovered. EPA may require the permittee to prepare a management plan for the eradication of specific stands of Phragmites in these areas.

ESA and NHPA Compliance

EPA believes it has satisfied its requirements under the Endangered Species Act and the National Historical Preservation Act. Prior to the issuance of the previous permit, a finding of no significant environmental impact was made by USDA as part of the funding process for the building of the treatment facility. This finding included no impacts to endangered or threatened species or their critical habitat and no impacts to historical, archeological, or cultural resources. Since this is an existing facility with no new planned expansion or construction expected within the permit term, it is believed that the issuance of the permit and the continued operation of the facility and associated discharge will have no effect on endangered or threatened species or their critical habitat and will have no impact on historical, archeological, or cultural resources.

Significant Changes from the Previous Permit

The draft permit contains the following changes from the last issued permit:

1. The draft permit has a limit for E. coli and no longer has a fecal coliform limit.

2. The draft permit has a water quality based limit for mercury. In addition, the draft permit requires the development and implementation of a pollutant minimization program for mercury.

3. The draft permit requires a one time priority pollutant scan to be conducted.

4. The frequency of monitoring of routine pollutants has been reduced. Previous data indicates that the facility is operated well and produces an effluent below the permit limits.

5. The advisory limits for ammonia have been removed. Year-round sampling for ammonia has been included.

The permit is based on an application dated March 25, 2008, and additional supporting documents found in the administrative record.

This permit will be effective for approximately five years from the date of issuance as allowed by regulation.

Written by: John Colletti August 2008
NPDES Programs Branch
77 West Jackson Blvd.
Chicago, IL 60604
312-886-6106